REMARKS

No claim has been amended, added, or deleted. Claims 2-6 remain in the application.

Claims 2-6 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable as obvious over an article by Wuthrich et al. entitled "Daily Stock Market Forecast from Textual Web Data" ("Wuthrich"). These rejections are traversed.

Claim 2 recites a method of predicting stock market behavior using trading software including a data analysis tool implementing natural language processing and a stock predictor implementing a stock prediction model, the method comprising:

said data analysis tool extracting information from news media relating to *a particular publicly traded company* to create a template including natural language text *describing activities or announcements of said particular publicly traded company*;

said data analysis tool *relating changes in stock price of said particular publicly traded company to information stored in said template about said particular publicly traded company*;

said data analysis tool determining a statistical significance of said changes in *stock price of said particular publicly traded company* based on said information; and

said stock predictor predicting changes in *price of the stock of said particular publicly traded company based on new information about said particular publicly traded company* if information of the type included in the new information has in the past caused a statistically significant change in the stock price in said *particular publicly traded company*.

As evidenced by the italicized language in claim 2 above, the invention predicts changes in the price of the stock of a particular company by relating changes in stock price of the *particular publicly traded company* to information stored in a template including natural language text describing activities or announcements of the particular publicly traded company *about said particular publicly traded company*. Changes in price of the stock of the particular publicly traded company may be predicted based on new information about the particular publicly traded company if information of the type included in any new information has in the past caused a statistically significant change in the stock price in the particular publicly traded company. Thus, the gathered information is related to a *particular company* for which stock price predictions are to be made. Such methods are not taught by Wuthrich.

As noted in an earlier response, Wuthrich describes a method of predicting the *daily closing values of major stock market indices* using information published in articles on the Internet - mostly textual articles appearing in the leading and influential financial newspapers. Keywords in the textual language, such as "bond strong," "dollar falter," "property weak," "dow rebound," "technology rebound strongly," etc. (bottom of column 2 of page 2721) are taken from the articles by a domain expert and weighted if determined to be influential factors that may potentially move the stock market indices. Such keyword data is not information "relating to a particular publicly traded company" and is not used to "create a template including natural language text describing activities or announcements of said particular publicly traded company" as claimed. Wuthrich does not teach how the keyword data is related to individual stocks and the described system makes no effort to predict the price of individual stocks using such keyword data. In fact, the system described by Wuthrich in no way relates the keyword data to the price of any individual stock and, in any case, it is unclear how such keyword data disclosed by Wuthrich could be related to the price of an individual stock as opposed to the stock index. Thus, Wuthrich does not generally teach how the resulting information could be related to the price of an individual stock as claimed.

Nevertheless, the examiner generally alleges that one skilled in the art would have known to modify the teachings of Wuthrich to relate natural language words to individual stocks as opposed to the stock market indices. Applicant disagrees. Applicant submits that keywords in the textual language, such as "bond strong," "dollar falter," "property weak," "dow rebound," "technology rebound strongly," etc. described by Wuthrich at the bottom of column 2 of page 2721 relate to macroeconomic factors have a known correlative effect to the stock market as a whole and, accordingly, Wuthrich could design a system to look for these words and correlate the occurrences of these words to the stock market index. On the other hand, when dealing with individual stocks, it is totally unpredictable as to what natural language words may impact an individual stock. Accordingly, the system of the invention has to correlate information "describing activities or announcements of said particular publicly traded company" (as opposed to known macroeconomic factors) to the stock price of the company. This information changes significantly from company to company. Wuthrich does not address what natural language

statements may impact individual stocks. On the contrary, Wuthrich simply correlates the occurrences of statements relating to macroeconomic factors to the stock market index. Such an analysis would not work for individual stocks and, in any event, is not what is claimed. Rather, claim 2 specifically recites that the information being correlated to the individual stock price describes "activities or announcements of said particular publicly traded company."

As explained further below, the teachings of Wuthrich fall even further short of suggesting the methods of claims 3-6.

Claim 3 further recites that the information about the particular publicly traded company whose stock price is being monitored may be clustered with information of another company whose stock price may be similarly affected by similar information that is included in the new information being analyzed. The examiner has pointed to no particular teachings by Wuthrich relevant to such clustering, and Applicant can find none. Rather, the examiner generally alleges that Wuthrich refers to the impact of particular natural language terms on other stock indices. Such general references certainly do not constitute clustering of information as claimed. Withdrawal of the rejection as applied to claim 3 is solicited.

Claim 4 further recites that natural language processing is used to parse a source of information for information about the particular publicly traded company and that the references to the publicly traded company are standardized, co-referenced to pronouns, and added to the template for the company. The examiner has pointed to no such teachings in the Wuthrich article and has generally alleged that such features are taught by Wuthrich. Not only are no such teachings provided, but the previous examiner admitted as much and cited the Roesler article to address this shortcoming in the teachings of Wuthrich. In any case, Wuthrich does not teach co-referencing pronouns as claimed. Accordingly, the rejection of claim 4 is unsupported by Wuthrich. Withdrawal of the rejection as applied to claim 4 is solicited.

Claim 5 further recites the step of clustering templates containing information about different publicly traded companies into similar cluster groups, determining changes in stock price of the companies in the cluster group at different times in response to comparable information, and estimating the statistical probability of a change in the stock price of the publicly traded company being monitored in response to new information statistically correlated

to the information in the comparable information. Again, the examiner has pointed to no teachings in Wuthrich of clustering information as claimed, and Applicant can find none. Withdrawal of the rejection as applied to claim 5 is solicited.

Finally, claim 6 relates to further conducting a stock trade based on the predicted change in stock price. The Wuthrich article relates to predicting the direction of the stock market – not to predicting the direction of a particular stock and making a trade for that stock based on such information. The Examiner has not provided a reference to any teaching in Wuthrich that would suggest the result of the information monitoring is to conduct a stock trade for a particular stock and Applicant can find no such teaching. Withdrawal of the rejection as applied to claim 6 is solicited.

For at least these reasons, withdrawal of the rejections of claims 2-6 as being obvious over Wuthrich is appropriate and is solicited.

Conclusion

The rejection of the claims over Wuthrich is improper and should be withdrawn. Allowance of all claims and issuance of a Notice of Allowability are solicited.

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